



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/525,077

02/18/2005

Werner Zimmermann

056226.55708US

5040

23911 7590 04/24/2007
CROWELL & MORING LLP
INTELLECTUAL PROPERTY GROUP
P.O. BOX 14300
WASHINGTON, DC 20044-4300

EXAMINER

WHITTINGTON, KENNETH

ART UNIT

PAPER NUMBER

2862

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|-----------|---------------|
|--|-----------|---------------|

3 MONTHS

04/24/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/525,077

Applicant(s)

ZIMMERMANN ET AL.

Examiner

Kenneth J. Whittington

Art Unit

2862

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 8-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 8-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2862

DETAILED ACTION

The Amendment filed April 11, 2007 has been entered and considered. In view thereof, the rejections of the claims over Dundas et al. (US4692701) have been withdrawn. However, upon further review of the claims, the status is as follows.

6

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

12

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

18

24

Claims 1-6 and 8-11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The steps recited are merely applying a field, detecting a time of commencement of noise, determining a field at such time and determining therefrom a stress or strain of data. Thus, while the claims fit into a statutory category of patentable subject matter (i.e., process), the claims are directed to an abstract idea or natural phenomena and thus do not comply with the requirements of Section 101. This is because these claims are merely an algorithm for determining the stress or strain. See MPEP 2106IV(C).

However, if the claims recite a practical application of a judicial exception, they will comply with Section 101. To

Art Unit: 2862

comply, the claims must transform an article or physical object to a different state or thing and otherwise produce a useful concrete and tangible result. See MPEP 2106IV(C)(2). While claims 1-6 and 8-11 may provide a useful and concrete result, that result is not tangible, i.e., the claims must produce a
6 real-world result that is tangible, and not merely abstract.

As a suggestion, amending claims 1 and 8 to include "outputting a signal representing the determined stress/strain condition of the element" (claim 1) or "outputting a signal representing the determined stress/strain in said item" (claim 8) would provide the claims with a tangible and real-world
12 result and would overcome this rejection.

Allowable Subject Matter

Claims 1-6 and 8-11 would be allowable if the claims are amended to comply with the requirements of 35 USC 101 as noted above. The following is a statement of reasons for the
18 indication of allowable subject matter. The prior art does not show or teach detecting a time of commencement or start of the Barkhausen noise, determining the magnetic field strength/magnetizing current at such time and comparing the determined result with reference to determine stress strain as

Art Unit: 2862

recited in the claims and in combination with the other features of the claims.

Conclusion

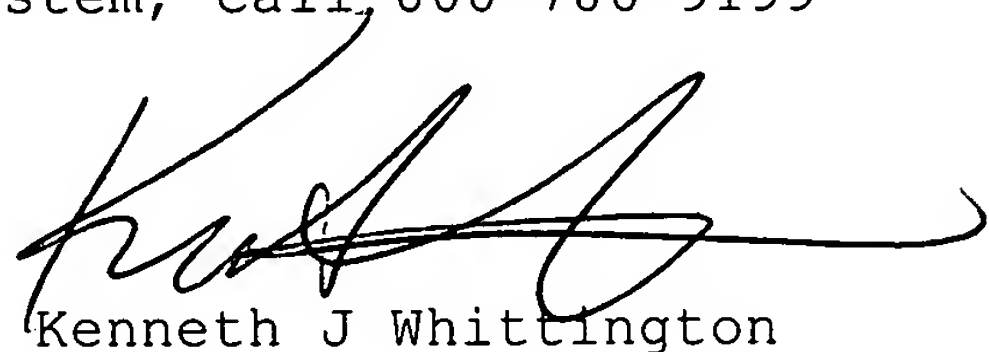
The prior art made of record and not relied upon is
6 considered pertinent to applicant's disclosure. US4596150
discloses measuring the time until a large Barkhausen effect
takes place and comparing this time period to a reference time
period to determine the stress or strain of an object.

Any inquiry concerning this communication or earlier
communications from the examiner should be directed to Kenneth
12 J. Whittington whose telephone number is (571) 272-2264. The
examiner can normally be reached on Monday-Friday, 7:30am-
4:00pm.

If attempts to reach the examiner by telephone are
unsuccessful, the examiner's supervisor, Edward Lefkowitz can be
reached on (571) 272-2180. The fax phone number for the
18 organization where this application or proceeding is assigned is
571-273-8300.


Art Unit: 2862

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Kenneth J Whittington
Examiner
Art Unit 2862

kjw



EDWARD LEPKOWITZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800